PRIORITIES IN THE DEVELOPMENT OF INFORMATION SYSTEMS IN AFRICA

I. INTRODUCTION

1. So far, little attention has been given by the majority of African countries to the formulation of policies, the organization and allocation of resources and the design of structures for a systematic control of the national wealth in information. It is the intention of this paper to point out certain areas that require immediate action, which if carried out within a reasonable span of time will enable information and documentation activities to pick up.

2. In attempting to identify priorities, one often has at his disposal the accumulated experience of past action serving as a guide for reassigning priorities or for drawing up altogether new directives. The case of information and documentation does not benefit from such an approach because it is essentially new to developing Africa. This does not mean that that there have been no entities that have performed the task of information and documentation work in Africa. In fact a combination of public, university, school and specialized libraries have been promoting the use of bibliographic information since colonial times using conventional methods of gathering, storing, processing and disseminating data. Moreover, the post colonial period has witnessed the proliferation of institutions, albeit to an unsatisfactory degree, that were partially engaged in the production, storage and dissemination of numerical and non-numerical data in the form of statistical abstracts, research bulletins, etc. Regardless of their objectives and functions, these mechanisms have fallen short of providing the total information requirements of present-day Africa partly as a result of the narrow scope of their target users (university libraries focusing on academics or statistical offices disseminating results of their own work alone) and partly because they have, more often than not, failed to effectively organize the nationally produced information. In the meantime, developments in the industrialized world have been progressing in a direction that has presently resulted in information and documentation systems that utilize approaches, coverage and mechanisms that are significantly different from libraries and their like. Coupled with advances in telecommunications and micro-electronics, it has now become possible to set up systems that can supply the total information requirements of a nation.

3. Although the development of information and documentation systems was first manifested in the industrialized world, its application in developing Africa poses a major problem mainly due to the drastically different social, economic and political milieu in which it is intended to be implemented. In the industrialized countries of the West, the provision of information services is basically maintained by the private sector. In the centrally planned economies, on the other hand,

the provision of information services can best be achieved through centralized, coordinated state machinery that is tuned to the levels of national need. The remaining body of the international community (i.e. the majority of the developing world is, even though advanced in relation to the African region, still experimenting with various types of arrangements that Africa can learn from the outside world is thus of limited and probable value. Therefore, any identification of priority areas for the development of information and documentation systems is a combination of ideas and innovations imported from the North on the one hand, and a strategy that has yet to be tested for its suitability to the African situation on the other.

4. Another important consideration that has to be weighed prior to assessing priorities in this field is the role information is to play in the development of Africa in the short and longterm. A clear identification of its role might be considered as equivalent to identifying the broad development objectives within which information and documentation systems are going to operate and the service they are going to provide towards the attainment of stated goals. Given the present concerns, goals and objectives of African nations, one could anticipate that the Lagos Plan of Action would provide a suitable framework within which short and medium term priorities can be set for the evolution of information and documentation systems.

5. This paper continues to provide priority areas for action, particularly concerning the planning for the development of information systems; institution building measures; purpose of regional cooperation in the information field, and manpower and training priorities.

II. PRIORITIES

6. A national information policy, reflecting the needs of all sectors of the community needs to be formulated to guide the establishment of a national information plan whose elements should also be incorporated in the national development plan. Information is an essential part of a nation's resources and the formulation and implementation of a national information policy should attempt to maximize the availability and use of the country's information resources as well as promoting the exchange and sharing of information with other nations and regions to complement what is available locally from external sources.

INSTITUTION BUILDING

7. The functions of all national documentation centres and libraries should be coordinated through a central body to form a national information system or network. The creation, or where a suitable mechnism already exists, its designation as the central body responsible for the formulation of policies and the implementation of the national documentation centre is essential. In fact,

what has been indicated in the previous paragraph cannot be attained unless an existing institution that performs a significant information and documentation activity is charged with the planning task.

8. National research councils, national planning bodies, national science councils, national libraries, development research institutes, etc. are all prospective candidates to serve as core institutions until the national documentation centre is established to take control of the responsibility. Another alternative could be the organization of a national committee/council at a high level of representation and encompassing a significant proportion of concerned state bodies. However, this latter approach would evidently delay the execution of practical programmes and loosen the institutionalized nature that is desired from the outset.

9. The selection of the institution to be responsible for initiating action and establishing the national information and documentation centre that will when fully operational, be responsible for coordinating the system of specialized information and documentation centres, libraries, etc. is extremely crucial and shall be, preferably, dealt with at high level in government. Its selection should be based on the availability of knowledgeable resource persons, infrastructural facilities and financial and material resources which it can make available to the national documentation centre until such time that the latter is integrated within the national budget and/or international assistance is made available to it.

10. Although national legislation affecting information and documentation services is, to a greater or lesser degree, available in most African countries, its strengthening and enforcement should be considered at the earliest possible date to complement what is to be done in the area of policy formulation, planning and institution building.

SUB-NATIONAL AND REGIONAL COOPERATION

11. It is apparent that information and documentation activities compete with other pressing national priorities for the allocation of budgetary resources. As a result, availability of funds, manpower and other resources have remained insufficient to maintain existing services, not to mention their expansion. The re-vitalization of existing centres or the creation of new ones to coordinate the national information and documentation activities can, therefore, succeed only if its financial outlays do not overburden the national budget.

12. One strategy that can be recommended to keep the costs of these systems (at least, their initial costs) is to share those facilities that are by their nature prone to high initial investments or those aspects that require highly qualified manpower.

13. This argument is even more valid if seen in the context of modern information processing technologies that require both significant investments and professionally trained staff. Therefore, the promotion of sub-regional and regional cooperation in the information field shall be geared, primarily towards the attainment of this objective.

14. However, the pursuit of this advantage should not end up in an over centralized operation that deprives cooperating systems from evolving local and indigeneous capabilities.

15. The same reasoning (i.e. the sharing of expensive facilities so as to reduce cost of operations) can be extended to the national level where a number of public, university and specialized libraries as well as sectoral/institutional documentation centres benefit from one central facility and a team of professionally trained practitioners (documentalists, information scientists, systems analysts).

MANPOWER AND TRAINING

16. Qualified manpower is generally accepted as being a very important element in the building up of national infrastructures. In the long term the supply of this important element should be guaranteed by integrating requirements for information manpower in the national educational structure at universities or equivalent institutions of higher education as well as by effectively organizing middle level training institutions. This long term availability of manpower is in turn dependent upon a satisfactory investigation of existing professional and non-professional personnel. The survey of available manpower can then be related in terms of number and quality to the needs indicated in the national information plan. The surveys should take into account national and international resources so that assistance can be solicited to enable at least the minimum essential facilities for basic training to be developed at national or regional level.

17. The national programmes should not only include initial courses and advanced studies but also specialized courses to provide for continuing education and training. Training personnel to use applied technology (including computers, reprography, telecommunications) in the field of information should be included in programmes for professional education.

18. In the short term the most pressing shortage is that of highly qualified practioners who can initiate and subsequently manage national, sub-regional and regional systems. The shortage is not mainly of qualification since each country possesses a few outstanding librarians and other practioners. Rather, the shortcoming seems to be in the area of professional information scientists who

are well acquainted with the diverse aspects of modern information and documentation systems. In other words, the knowledge of this category of staff should encompass documentation work, computer science and user services for non-bibliographic information, etc.

19. At the medium level, there is an urgent need to upgrade the potentials of existing information workers to enable them to effectively meet the challenge posed by the relatively new approaches, coverage, processing methods and dissemination mechanisms to be used by the national, sub-regional or regional systems.

...